

SEVERE LOCAL STORMS, AUGUST 1941

[Compiled by Mary O. Souder]

[The table herewith contains such data as has been received concerning severe local storms that occurred during the month. A revised list of tornadoes will appear in the United States Meteorological Yearbook.]

Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
Fisher, Minn., vicinity of....	1	3:30 p. m....	15	-----	\$1,000	Hail.....	Loss to growing crops; path 8 miles long.
Oney, Okla.....	1	4-6 p. m....	11	-----	5,000	do.....	Loss principally to cotton; path 4 miles long.
Castlewood, S. Dak., 10 miles northeast.	1	6 p. m....	-----	-----	1,000	Wind.....	Property damaged.
Lookeba, Okla., 4 miles north.	1	-----	11	-----	1,000	Hail.....	Loss in cotton, corn, and tomatoes; path 1 mile long.
Phillips and Valley Counties Mont.	2	5:30-10 p. m.	13	-----	90,000	Heavy hail.....	Loss in wheat, oats, and barley; chickens killed; roofs damaged; path 75 miles long.
Sallisaw, Okla.....	2	9:45 p. m....	100	-----	3,000	Wind.....	Property damaged.
Beardsley, Minn., and vicinity.	3-4	11 p. m.-7:15 a. m.	13	-----	3,000	Hail.....	Loss to growing crops, \$2,000; property damage, \$1,000; path 4 miles long.
Lake Minnetonka, Minn., vicinity of.	3-4	11:30 p. m.-7:15 a. m.	-----	-----	2,500	Thunderstorm and hail.	\$2,000 property damage from wind; \$500 loss in growing crops; some poultry perished.
Minneapolis, St. Paul, and vicinity.	4	2:45 - 3:55	-----	-----	10,000	Rain and flood....	Sewers overflowed, many basements and streets flooded. Short stretch of railroad track washed out, derailling 9 freight cars.
Big Sandy, Mont., and vicinity.	6	5 p. m....	14	-----	32,000	Heavy hail and rain.	Loss in crops; path 15 miles long.
Hot Springs, S. Dak., and vicinity.	6	8-11 p. m....	-----	-----	10,000	Rain and flood....	2.70 inches of rain recorded. Railroad track washed out; buildings flooded and power plant damaged.
Ada, Minn., and vicinity....	6-7	-----	-----	-----	1,000	do.....	Fields and basement flooded; loss in growing crops.
Ovid, Colo.....	7	4 p. m....	12	-----	5,000	Heavy hail.....	Loss in corn and beet crops.
St. Cloud, Minn., and vicinity.	7	9-10 p. m....	11	-----	1,000	Thundersqualls....	Property damaged.
Parke County, Ind.....	9	3 p. m....	-----	-----	2,500	Wind and hail.....	Buildings and trees damaged.
Beardsley, Minn., and vicinity.	10-11	11 p. m.-7:15 a. m.	-----	-----	2,000	Thundersquall and hail.	A number of farm buildings damaged; trees uprooted; loss to growing crops.
Ellis County, Kans.....	11	6:30 p. m....	-----	-----	10,000	Heavy hail and wind.	Chief damage from hail on experiment farm and on farms south for a distance of 6 miles.
Walworth County, Wis., western portion.	11	-----	-----	-----	10,000	Thundersqualls....	Several barns, windmills, silos, and other small farm buildings damaged; utility service disrupted; 3 persons injured.
Pittsburgh, Pa., and vicinity.	12	A. m....	-----	-----	3,000	Electrical and wind.	Property damaged.
Columbia, Va.....	12	1 p. m....	11	-----	2,500	Heavy hail.....	Loss in crops; path 5 miles long.
Petersburg, Va.....	12	2 p. m....	200	1	50,000	Tornado.....	The tornado struck four different sections of town and damaged 3 factories and several other buildings. Smokestacks were blown down; roofs blown off or badly damaged, and large water tank damaged. Trees were blown down and man killed by flying wreckage.
Richmond, Va.....	12	2:04-3:15 p. m.	-----	-----	15,000	Violent thunder-squall.	Roofs and chimneys damaged, trees blown down, and a circus tent demolished.
Williamsburg, Va.....	12	2:30-5 p. m....	18-10	-----	3,000	Thunderstorm....	Several buildings struck by lightning, and city water supply interrupted for several hours.
Alamosa, Colo.....	16	2 p. m....	15	-----	500,000	Heavy hail.....	Much loss in peas, alfalfa, and small grain.
Idaho County, Idaho, north-western portion.	16	4 p. m....	13	-----	50,000	do.....	Considerable loss in standing grain; path 20 miles long.
Colorado to Mitchell, Tex....	18	5 p. m....	1,760-2,640	-----	-----	Hail.....	800 acres of cotton and 600 acres of grain sorghums damaged; slight damage to other property.
Pueblo, Colo.....	18	5:30 p. m....	12	-----	65,000	Heavy hail.....	Loss in melon, cucumber, onion, and bean crops.
Pennington, N. Mex., vicinity of.	18	10 p. m....	11	-----	6,000	do.....	Crop loss, \$5,000; property damage, \$1,000.
St. Vrain, N. Mex., vicinity of.	18	4 a. m....	1,320-2,200	-----	5,000	do.....	Loss in crops.
Tularosa, N. Mex.....	19	10:30-11 a. m.	880	-----	6,000	do.....	Loss in crops.
Canon City, Colo.....	19	3 p. m....	15	-----	1,000	do.....	Considerable loss in fruit and vegetables not estimated; \$1,000 damage to greenhouses.
Church Road, Va.....	19	P. m....	-----	1	3,000	Thunderstorm....	Residence struck by lightning and burned, and large feed barn destroyed.
Ault, Colo.....	20	1 p. m....	16	-----	\$50,000-75,000	Heavy hail.....	Loss in beans, beets, potatoes, and truck.
Sugar City, Colo.....	20	1:15 p. m....	15	-----	100,000	do.....	Loss in alfalfa, vine crops, beets, tomatoes, and corn; roofs and windows damaged; poultry killed.
Blanca, Colo.....	20	2:20 p. m....	12	-----	600,000	do.....	Loss in grain, peas, lettuce, and cauliflower.
Pojuaque and Nambé, N. Mex.	20	3 p. m....	1,320	-----	25,000	do.....	Loss in crops.
Culbertson, Nebr., and vicinity.	20	5 p. m....	14	-----	6,000	Hail.....	Damage principally to corn.
Leeds to Deerfield, Wis.....	20	do.....	11-4	-----	50,000	do.....	Much loss in tobacco and corn, the former being a complete loss in some areas.
Wakeeney, Kans., vicinity of.	20	11 p. m....	14	-----	2,000	Wind.....	Chief damage at fair grounds where barns were wrecked and tents and exhibits were damaged; path 8 miles long.
Traer to Cedar Bluff, Kans....	20	P. m....	-----	-----	10,000	Heavy hail.....	Loss in crops; property damaged; path 7 miles long.
Delaware County, Iowa.....	20	-----	880	-----	6,000	Wind and hail....	Property damaged; path 5 miles long.
Marshall and Sun Prairie, Wis.	20	-----	-----	-----	1,000	Hail.....	Two silos; 35 power line poles blown down and several barns and outbuildings damaged.
Lincoln, Lyon, Murray and Martin Counties, Minn.	21	3 p. m....	13	-----	46,000	do.....	Loss in crops; property damaged; path 25 miles long.
Spring Grove, Minn., vicinity of.	22	4 p. m....	880	-----	1,000	do.....	Loss to growing crops; path 2 miles long.
Fredericksburg, Va., and vicinity.	22	5-6 p. m....	-----	-----	4,000	Thunderstorm....	Two large barns destroyed.
Kanapolis, Kans.....	22	6 p. m....	-----	-----	10,000	Heavy hail.....	Hail accumulated to a depth of from 4 to 5 inches; roofs damaged and windows shattered.
Newport, Pa.....	22	P. m....	-----	-----	8,000	Electrical and hail.	Barn burned; loss to corn from hail.
Syracuse, N. Y.....	22	-----	-----	-----	-----	Electrical and wind.	Trees and limbs blown down causing much damage to telephone and power lines and some damage to houses and automobiles.
Balat and Lucan, Minn....	23	1:30 p. m....	11	-----	15,000	Hail.....	Loss to growing crops; path 5 miles long.
Las Vegas, N. Mex.....	23	3-4 p. m....	13	-----	54,000	Heavy hail.....	\$50,000 crop loss; \$4,000 property damage.
Progreso, N. Mex., 4 miles southeast.	23	3:30-4 p. m....	880	-----	3,000	do.....	Loss in crops.
Salina, Kans.....	23	P. m....	-----	-----	50,000	Heavy hail and rain.	Chief damage in the northern and eastern parts of the city, especially in the Country Club district. 4,000 panes of glass in one greenhouse broken.

¹Miles instead of yards.

SEVERE LOCAL STORMS, AUGUST 1941—Continued

Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
Burns, Kans., vicinity of... Berne, Ind.	23-24 25	Midnight... 4:45 p. m.	880	-----	5,500	High wind..... Hail.....	Property damage, \$2,000; loss in crops, \$2,500; path 10 miles long. Hailstones described as being as large as apples and that 2 hours after they had fallen, small pieces of ice could be found on the ground. Damage to rural property; path 3 miles long.
Lincolnton, Kans., about 1 mile northeast. Marion and Morris Counties, Kans. Marion and Morris Counties, Kans.	25	5:15-5:30 p. m. 5:15-5:30 p. m. 5:15-5:55 p. m.	----- 100 33	0 0 0	70,000 damage from 3 tornadoes.	Tornado..... do..... do.....	Originated about a mile west of Lincolnton where 3 business houses and many other buildings were damaged; path 8 miles long. Started 4 miles south Ramona, passed south of Lost Springs and Burdick and ended 8 miles southeast of Wilsey. School building demolished and rural property damaged; path 25 miles long. These 3 tornadoes seem to have appeared at about the same time and only the aggregate damage is attainable. 6 persons were injured, 1 seriously. Damage to trees and gardens.
Gothenburg, Nebr., and vicinity. Junction City, Kans., vicinity of. Kemblesville, Pa., vicinity of.	25 25 25	6 p. m..... 11 p. m..... P. m.....	11 ----- 300	----- ----- 0	5,000 2,000 75,000	Hail, wind and rain. Wind and hail.... Tornado and hail.	Property damaged. Storm began at Kemblesville and moved eastward into Delaware. 15 homes were damaged, 10 barns blown down, and 25 others unroofed. Trees uprooted and twisted off, tops torn out, corn uprooted and damaged by hail and telephones disrupted. Loss in crops; path 30 miles long.
Westmoreland, Kans., vicinity of. Wichita, Kans., southern portion. Cottonwood, Idaho..... Norfolk, Va..... Powder River and Carter Counties, Mont. Grant, Douglas, Big Stone, southern Morrison and northern Benton Counties, Minn. Wilkin, Grant, Ottertail, Douglas, Kanabec Counties, Minn. Sawyer, Pine, and Price Counties, Wis., and vicinities.	26 26 26 26 28 29 29 29	7 p. m..... 7:09-7:20 p. m. do..... do..... do..... 9:15 a. m..... 9:15 a. m..... P. m.....	125 ----- 12 ----- 14 115 115	----- ----- ----- ----- ----- ----- -----	7,000 50,000 15,000 4,000 ----- 60,000 76,000 4,800	Heavy hail..... do..... Hail..... Thunderstorm..... Hail..... do..... Thundersqualls.... Thundersquall and heavy rain.	Much glass broken; automobile tops punctured and airplanes damaged. Loss in wheat, barley, oats and gardens; path 6 miles long. Property damaged. Much crop loss; path 60 miles long. Loss in growing crops, \$57,000; property damage, \$3,000; path 25 miles long. Property damaged; loss in crops; 1 person injured; path 75 miles long. Trees blown down blocking highways; utility service disrupted, and property damaged. The highest wind velocity recorded was 44 miles from the northwest at 2:10 p. m., at which time 2 large smokestacks and a large pulpwood conveyor were blown over. Fruit trees damaged and much corn leveled. Loss in growing crops, \$5,000; property damage, \$500. Barn burned.
Beardsley, Minn., vicinity of. Hartwick, Iowa, vicinity of...	30 31	2:15 p. m..... 4:30-5:30 p. m.	----- -----	----- -----	5,500 4,000	Hail..... Electrical.....	Loss in growing crops, \$5,000; property damage, \$500. Barn burned.

¹ Miles instead of yards.

SOLAR RADIATION AND SUNSPOT DATA FOR AUGUST 1941

SOLAR RADIATION OBSERVATIONS

By HELEN CULLINANE

Measurements of solar radiant energy received at the surface of the earth are made at 9 stations maintained by the Weather Bureau and at 12 cooperating stations maintained by other institutions. The intensity of the total radiation from sun and sky on a horizontal surface

is continuously recorded (from sunrise to sunset) at all these stations by self-registering instruments; pyrheliometric measurements of the intensity of direct solar radiation at normal incidence are made at frequent intervals on clear days at three Weather Bureau stations (Madison, Wis.; Lincoln, Nebr.; and Albuquerque, N. Mex.) and at the Blue Hill Observatory at Harvard University. Occasional observations of sky polarization are taken at the